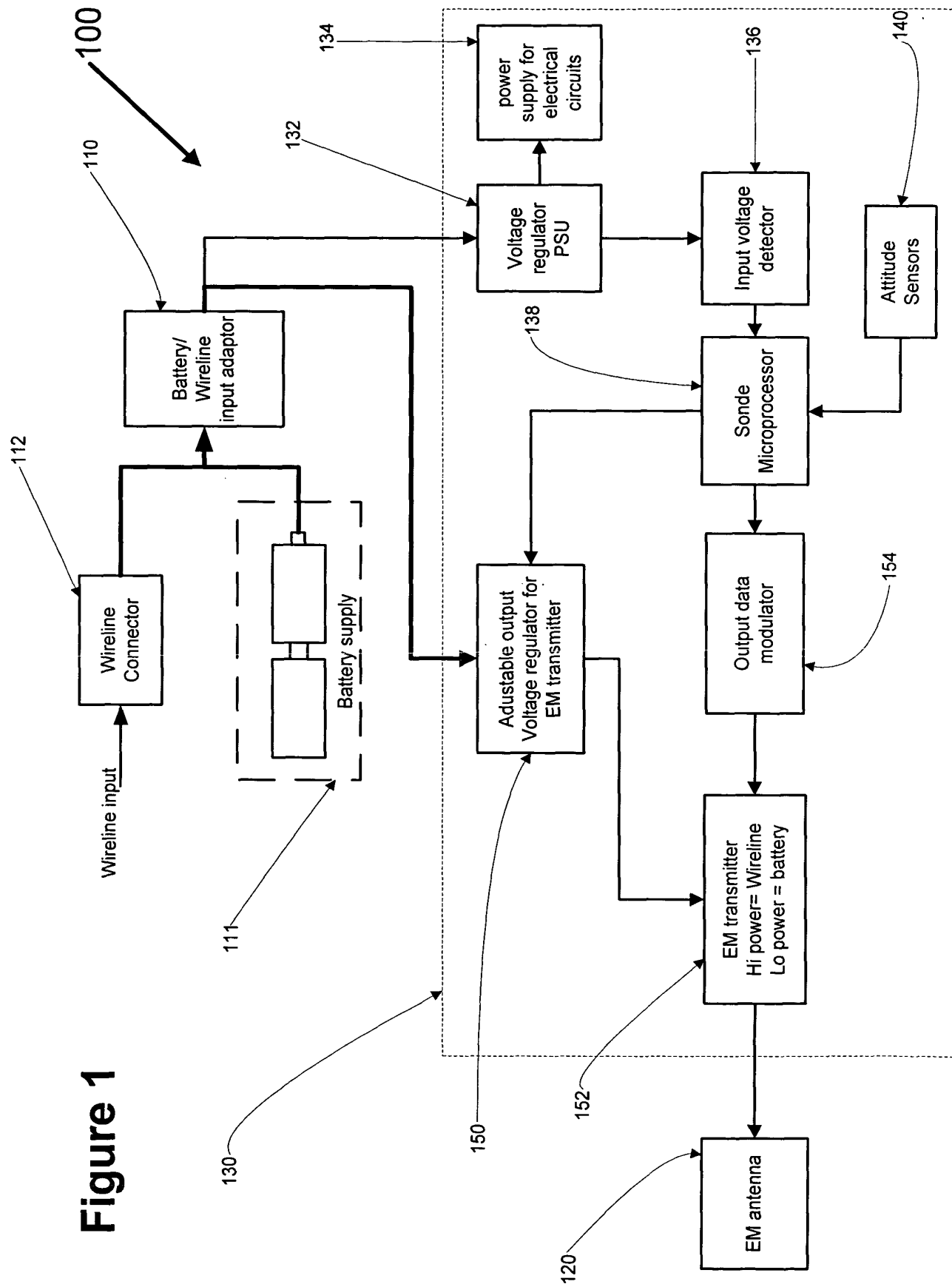


Figure 1



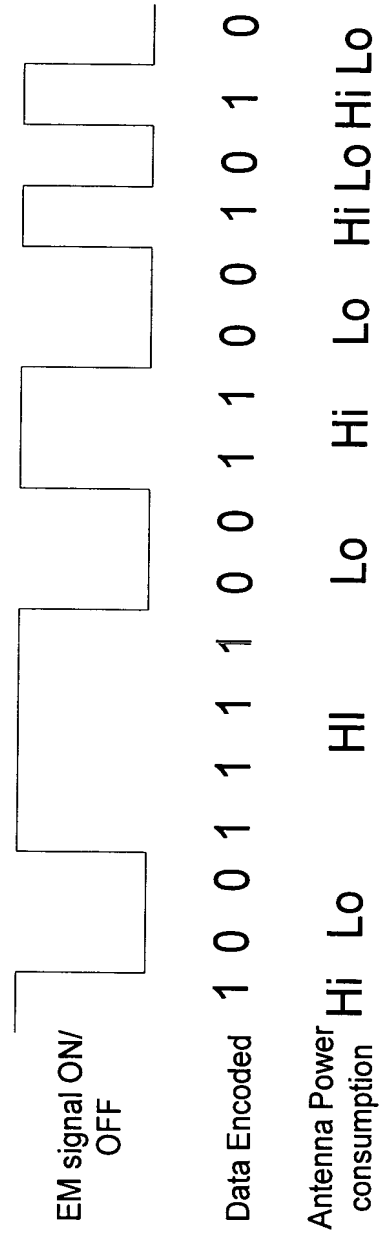
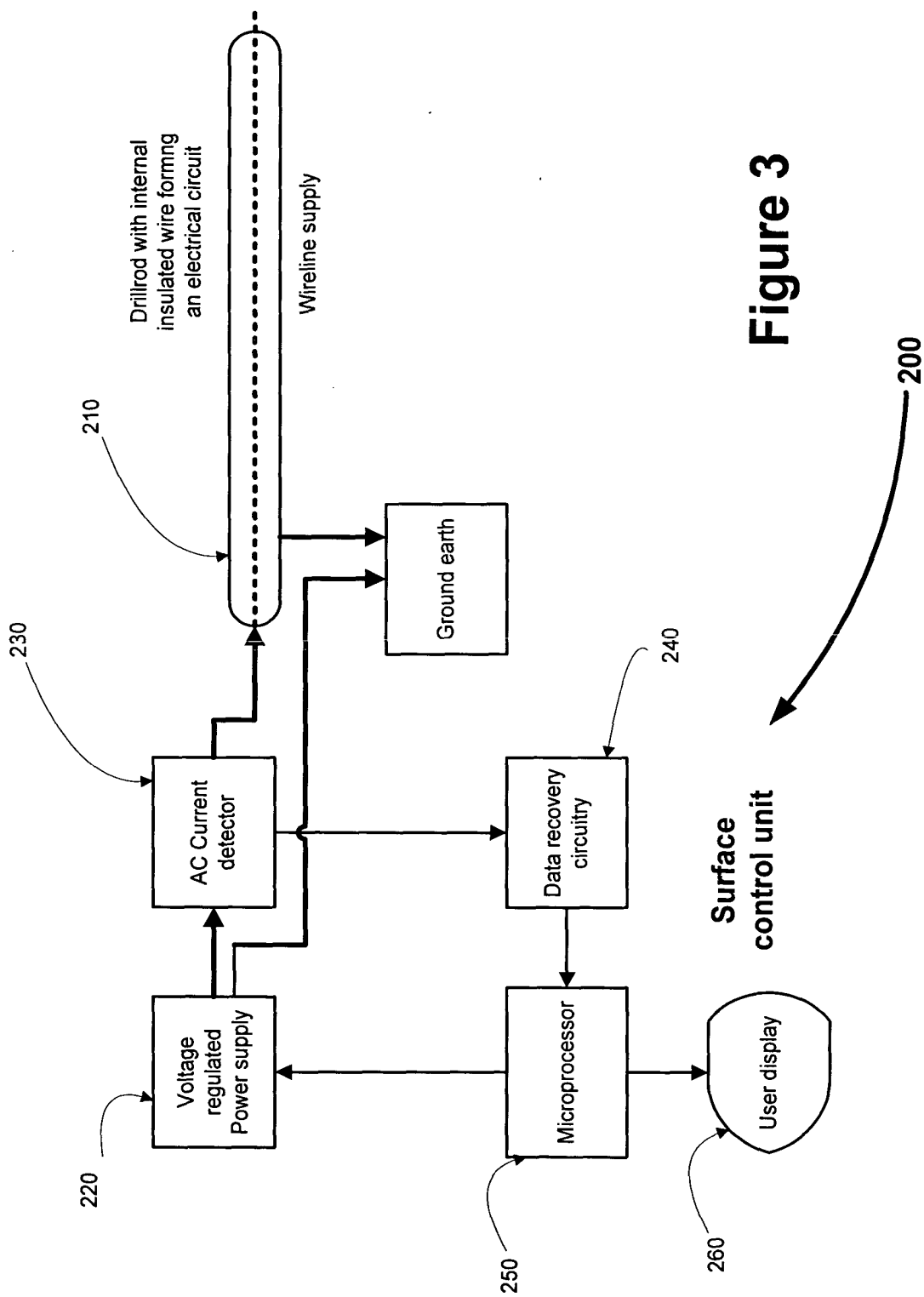


Figure 2



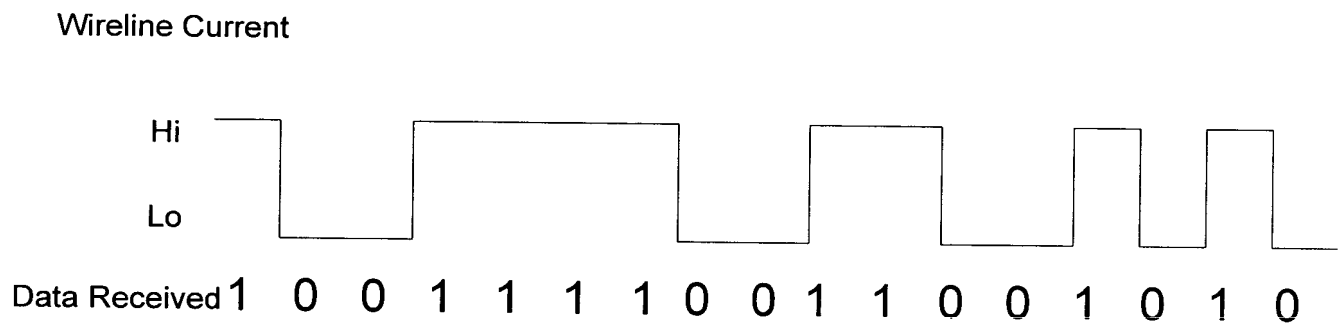


Figure 4

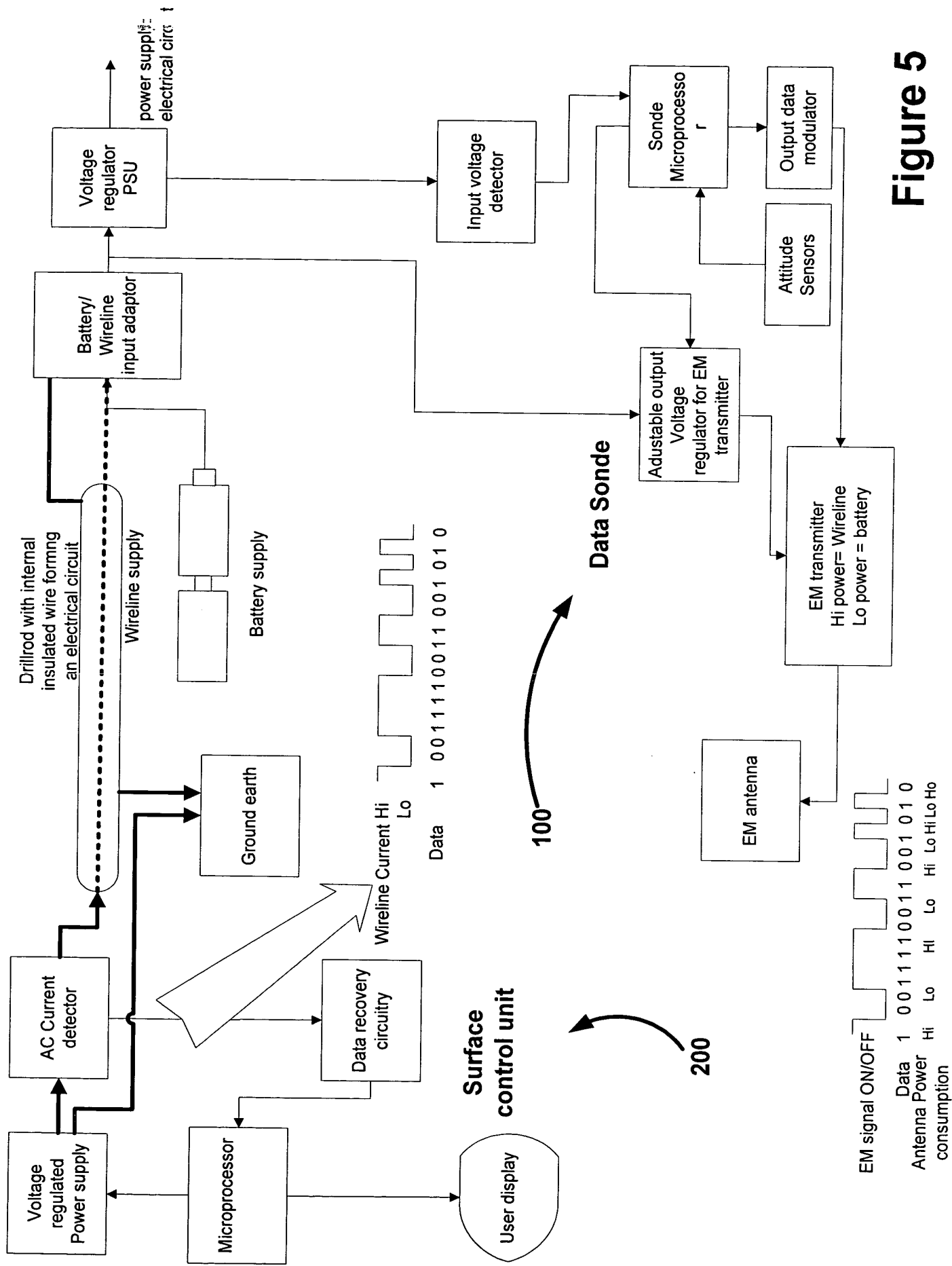


Figure 5

Figure 6

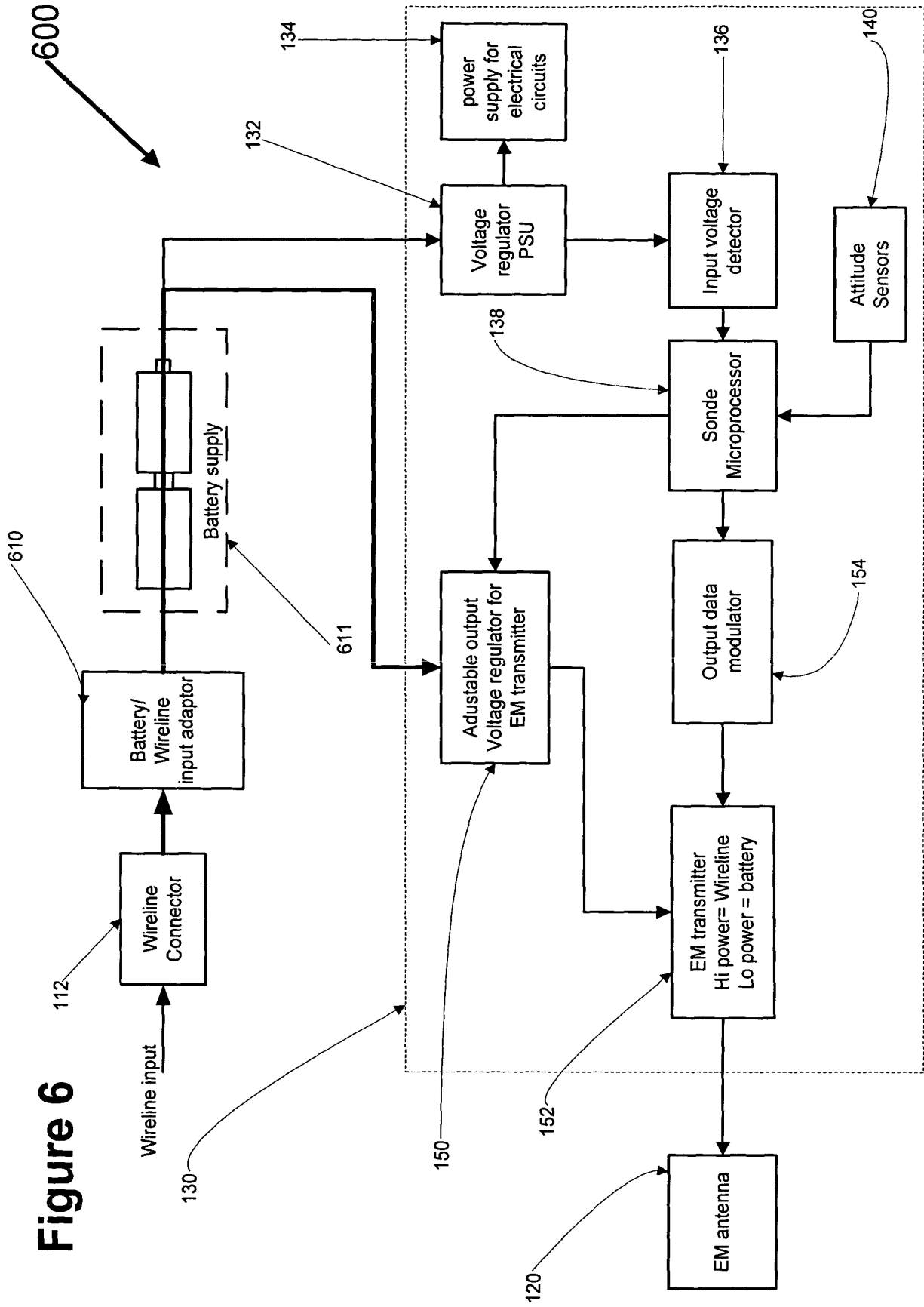


Figure 7

Figure 7 is a block diagram of a system 700. The system 700 includes a Wireline input connected to a Wireline Connector (712). The Wireline Connector (712) is connected to a Battery/Wireline input adaptor (710). The Battery/Wireline input adaptor (710) is connected to a Battery supply (711) and a Voltage regulator PSU (732). The Voltage regulator PSU (732) is connected to a power supply for electrical circuits (734) and an Input voltage detector (736). The Input voltage detector (736) is connected to a Data decoder (760). The Data decoder (760) is connected to a Sonde Microprocessor (738). The Sonde Microprocessor (738) is connected to an Output data modulator (754) and an EM transmitter (752). The EM transmitter (752) is connected to an EM antenna (720). The EM transmitter (752) also receives input from an Adustable output Voltage regulator for EM transmitter (750). The Adustable output Voltage regulator for EM transmitter (750) is connected to the Battery/Wireline input adaptor (710) and the EM transmitter (752). The Battery/Wireline input adaptor (710) is also connected to the Adustable output Voltage regulator for EM transmitter (750). The Battery/Wireline input adaptor (710) is also connected to the Voltage regulator PSU (732). The Battery/Wireline input adaptor (710) is also connected to the Input voltage detector (736). The Battery/Wireline input adaptor (710) is also connected to the Data decoder (760). The Battery/Wireline input adaptor (710) is also connected to the Sonde Microprocessor (738). The Battery/Wireline input adaptor (710) is also connected to the Output data modulator (754). The Battery/Wireline input adaptor (710) is also connected to the EM transmitter (752). The Battery/Wireline input adaptor (710) is also connected to the EM antenna (720).

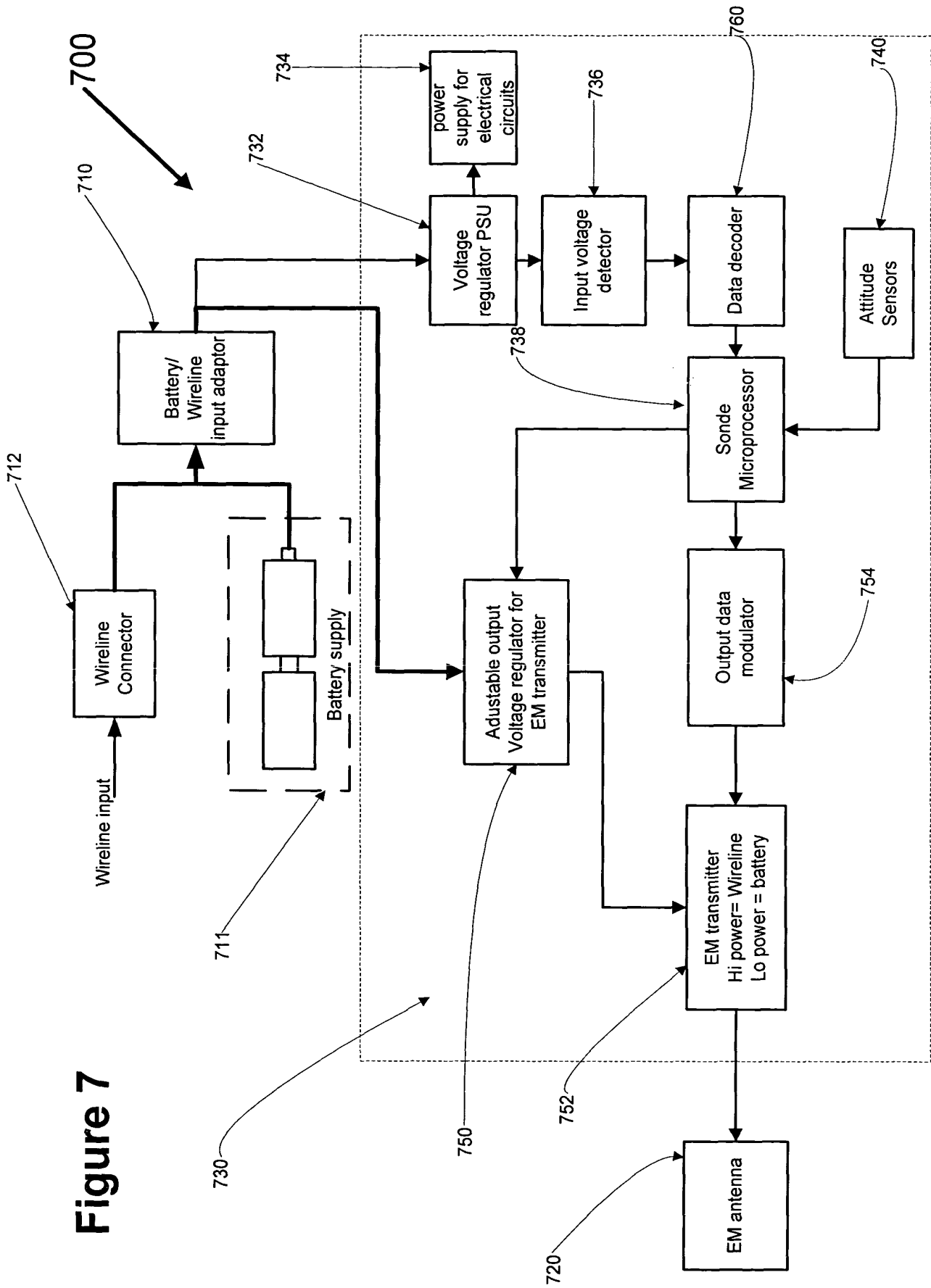
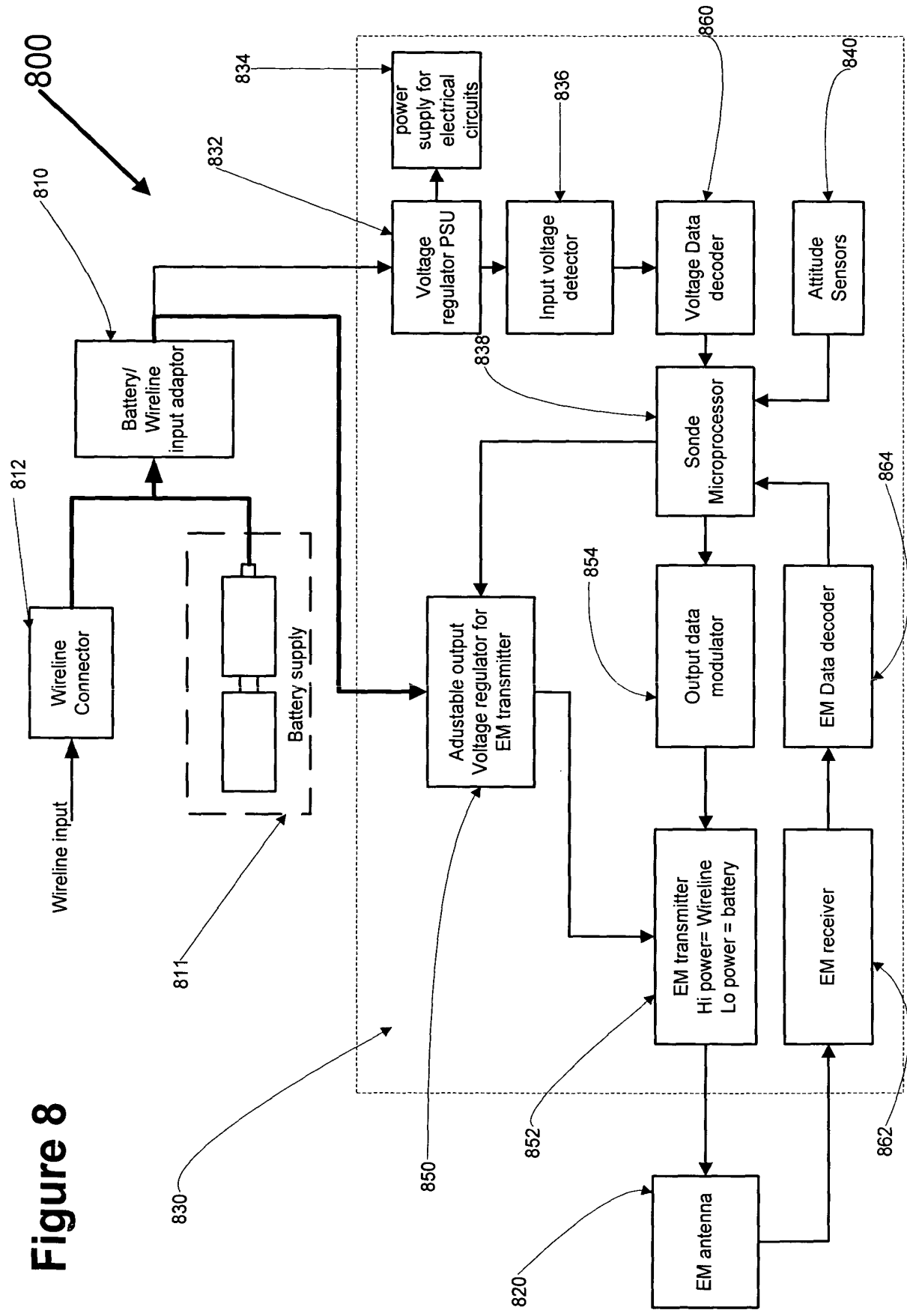


Figure 8



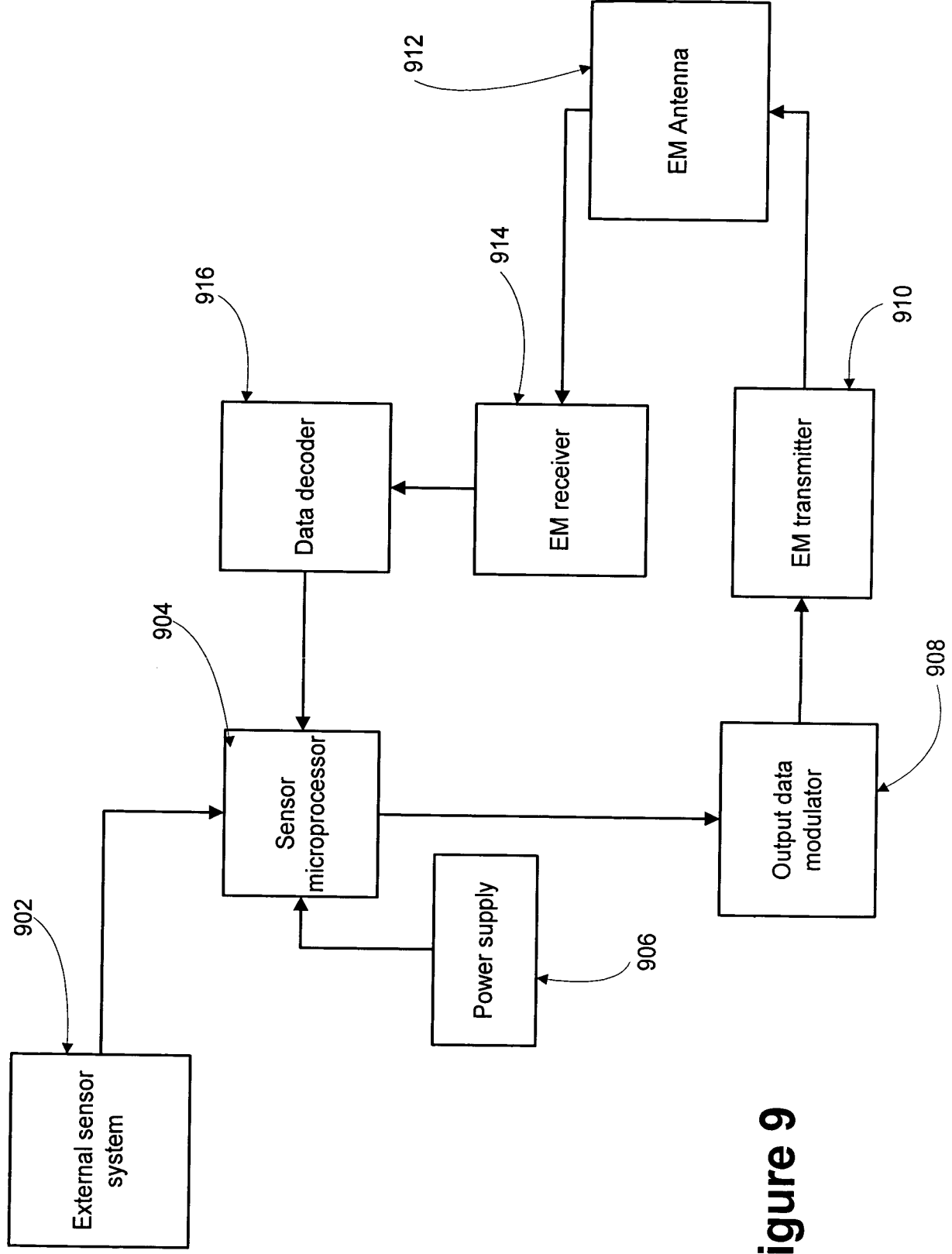


Figure 9

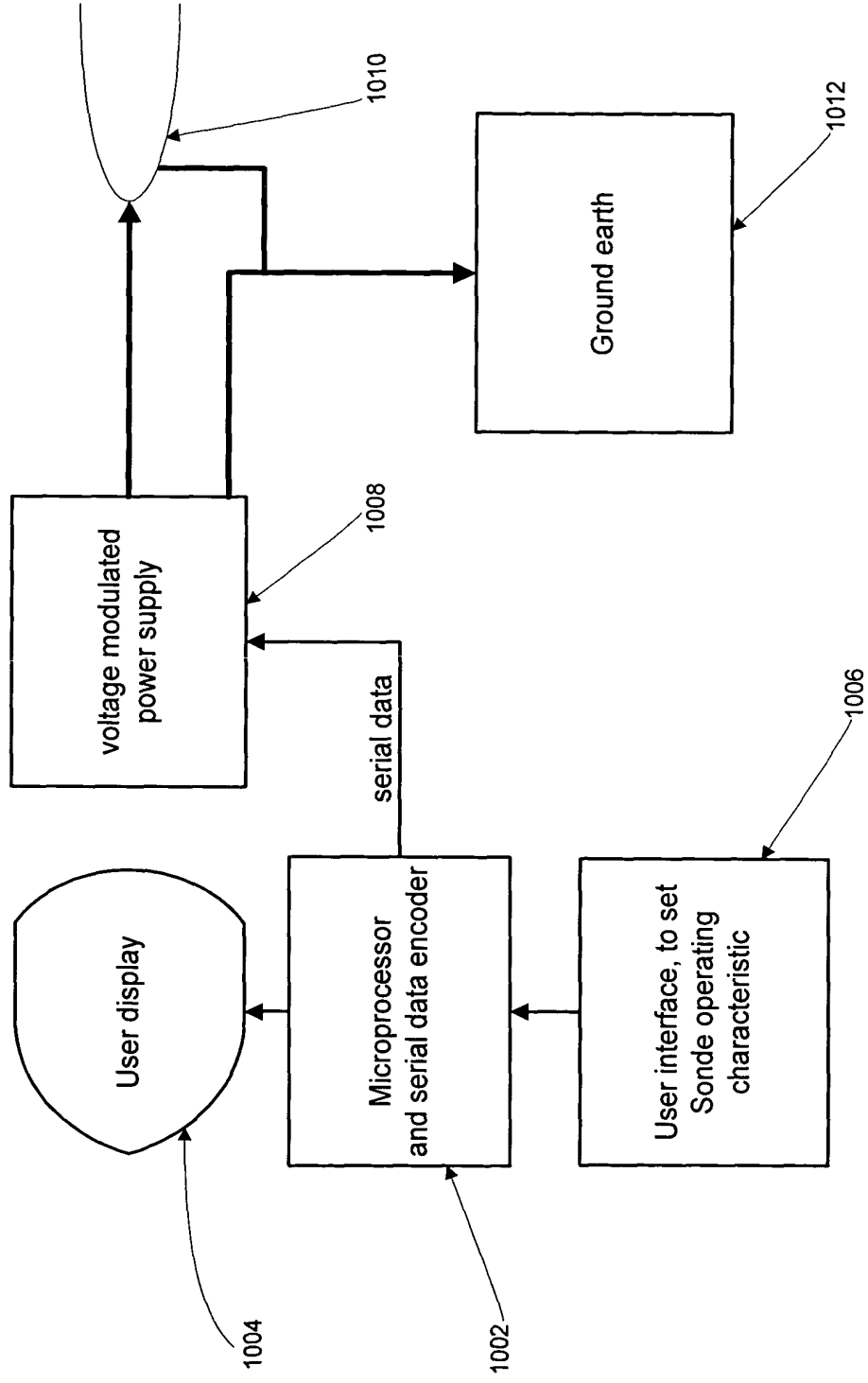


Figure 10

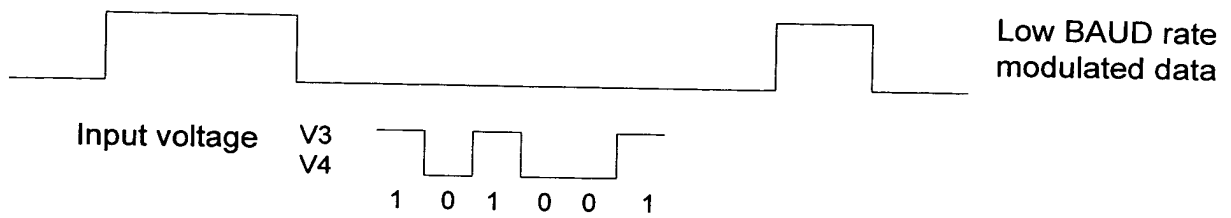


Figure 11a

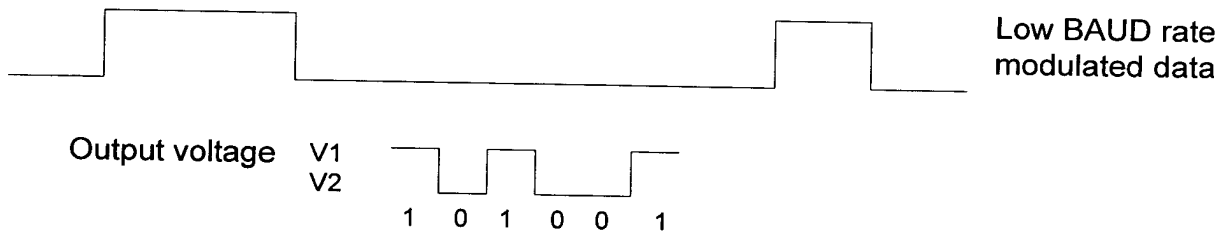


Figure 11b

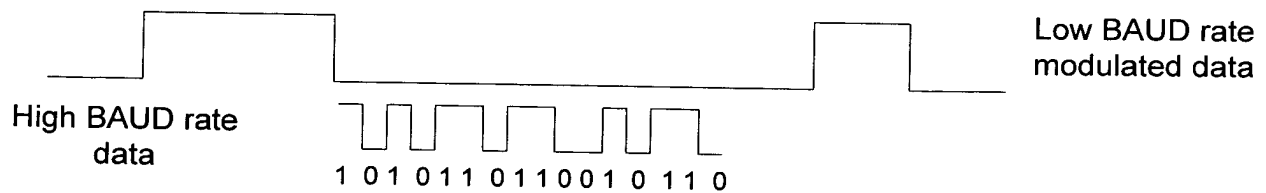


Figure 11c

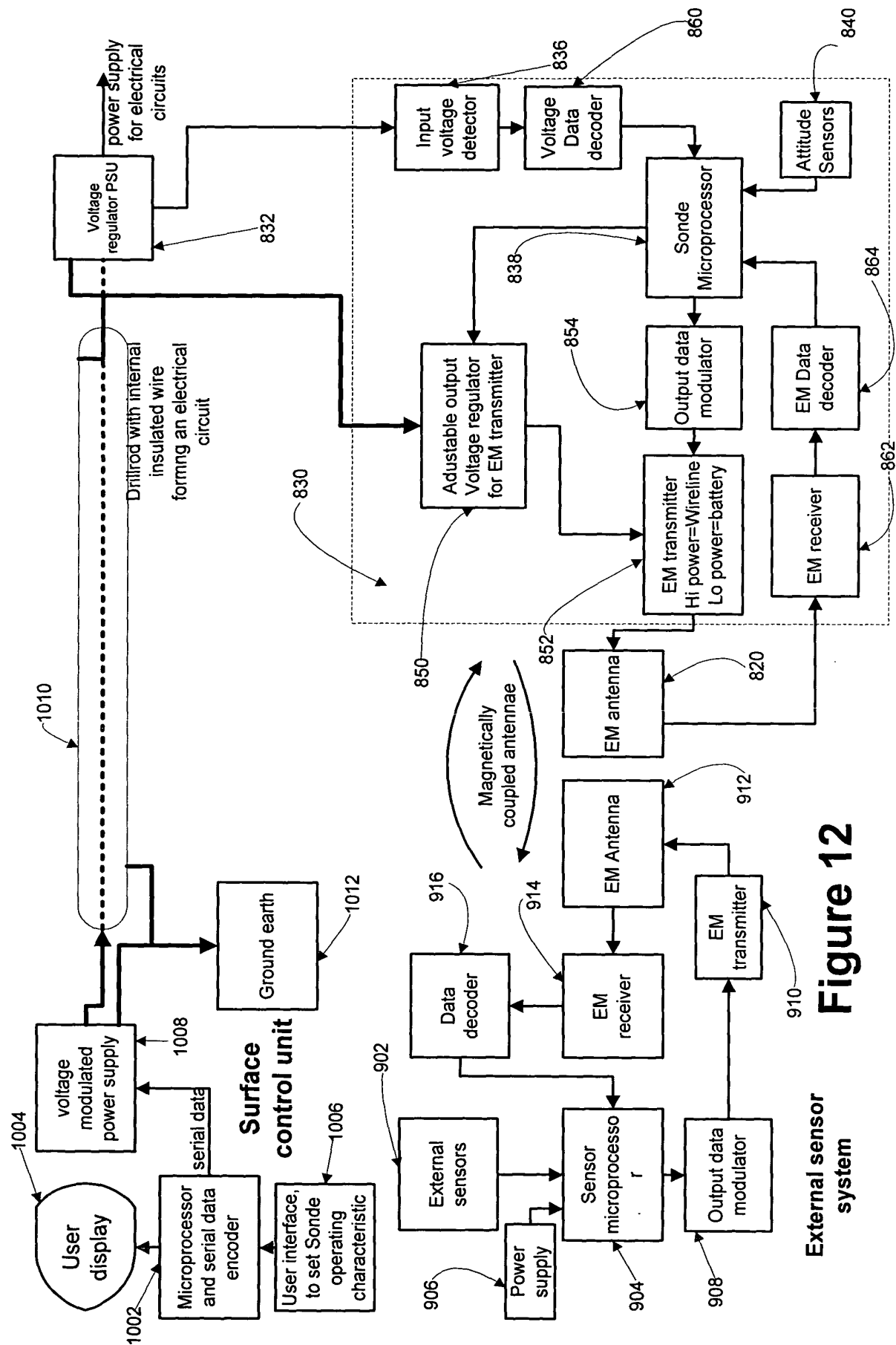


Figure 12